

rejection of claims 1-19 under 35 USC §102(b). The Examiner holds that the invention is clearly anticipated due to applicant's supposed commercial exploitation of the invention.

The attached affidavit sets forth the inventor's sworn statement that the invention was not commercially exploited or publicly used prior to the one year bar imposed by 35 USC §102(b).

As set forth in Piet v. United States, 123 USPQ 21 (D.C. S.D. Calif. 1959), public use does not exist where all use of the invention was by the inventor or by persons under an obligation of secrecy only. The applicant states that such is the case in the present invention. See the attached affidavit.

The present invention was never placed into the possession of the public, since all documentation of the invention remained secret within the Charles Stark Draper Laboratory and within the U.S. government's (NASA) hands only. See Wyeoff v. Motorola, Inc., 209 USPQ 115, 125 (D.C. N.D. Ill, 1980).

The Examiner rejects claims 1-19 under 35 USC §102(b) as being clearly anticipated by Perkins et al. Applicant has amended claim 16 to indicate that the statements entered are "when/then" statements.

Perkins describes a way of writing code. The applicant invented a system in which the user, such as an astronaut, does not need to understand how to write code or loops. The system compiles the decisional rules, the system parses the condition; the system provides continuing interactive evaluations; the

system resumes processing after the condition is fulfilled.

Perkins describes the opposite: the user writes code which is compiled; the user writes code which parses the condition; the user writes code which provides continuing interactive evaluations; the user writes code which performs the task when the condition is fulfilled; the user writes code which resumes processing after the condition is fulfilled.

Using the technique of Perkins, one cannot enter a command such as "when. . .then" as code into the computer. Instead, the user must write code which accomplishes the function of "when. . .then". To do this, the user must understand computer programming and be able to write loops and nested loops if there are many conditions.

The user must be able to keep track of nested loops, must exercise configuration control when changes are made, must trouble shoot and debug the programs written -- in short, must do all the things that computer programmers do.

The applicant's invention allows the user to enter a "when. . . then. . ." statement and the claimed system takes care of everything else. In this way, an astronaut on board the space shuttle who has no computer programming experience can enter the command "When $T = T_{\text{launch}}^{-30}$, then ignite rocket engine" and the claimed system takes care of everything else.

The invention has proved, through experimental use, to enable those not skilled in the computer arts to be able to enter

commands in the way humans actually think.

Humans do not naturally think in terms of "If. . .then. . ." loops. Four years of computer science education is required before computer programmers can "think" this way.

Instead, humans think in terms of "when it is 12:00, I'll eat lunch". To program this, an "if. . .then. . ." statement must be written and a loop written to keep checking whether or not it is now 12:00.

The applicant's invention eliminates this type of coding by the user. The system writes the necessary code automatically for the user.

Applicant claims a method for automatically evaluating a decisional rule containing a task and a condition which must be fulfilled before the task can be performed and for automatically performing the task when the condition is fulfilled, comprising entering the decisional rule into computing means; compiling the decisional rule to parse the condition; providing automatic and continuing interactive evaluations of whether the condition is fulfilled until the condition is fulfilled once; automatically performing the task when the condition is fulfilled once; and resuming further processing only after the condition is fulfilled once.

In contrast, Perkins discloses a machine code program which evaluates the occurrence of a condition and performs a task if the condition occurs. The evaluation of the occurrence of the condition is repeated over and over again until the condition

occurs, at which time the task is preformed. The loops required to perform the recursive evaluations are part of this programming. Although, in Fig. 7, "WHEN:" and "THEN:" are used to illustrate the processing which occurs, the author's own English translation at the top of the figure clearly shows that the process is an "IF-THEN" process: "If the bearing's temperature exceeds 80° after its thermal model is calculated, [then] a new goal to diagnose the problem is activated."

Furthermore, Perkins does not disclose a system wherein the "WHEN" statement is manually input by the user. Perkins' program is not interactive as all the instructions are in the original program itself. The only input are the specific parameters which the program acts on.

Applicant discloses a WHEN/THEN system which evaluates a decisional rule entered by the user and translates this decisional rule into code in order to allow the user to interface with the system without requiring the user to be able to program the code into the system. See page 6, lines 20-23 and page 7, lines 5-10 of the specification.

Applicant's invention accepts a decisional rule from the user in a "WHEN-THEN" form and then compiles the statement to parse and isolate the condition. See page 8, lines 6-8 and page 11, lines 7-24. The system then performs the necessary operations based on the occurrence of the condition set forth in the decisional rule. This allows those not skilled in the computer science disciplines to enter a command such as "WHEN"

instead of "IF" type statements which would require "loops" of programming to enable an executor to recursively evaluate the conditions. See page 17, lines 10-14.

An example of the application of the disclosed system is recited on page 16, line 18 through page 18, line 2.

Applicant claims a system which allows a user to input decisional rules which are then compiled and parsed to determine the condition to be evaluated, as opposed to Perkins, who discloses a pure computer program. The only inputs are the data to be acted upon. If the user wishes to change the condition to be evaluated, he must rewrite the program, including writing loops to change the processing which occurs. Therefore, it is respectfully submitted that applicants' invention is not anticipated by Perkins.

Each of Examiner's rejections has been addressed or traversed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this PRELIMINARY AMENDMENT is found to be INCOMPLETE, or if at any time it appears that a TELEPHONE CONFERENCE with counsel would help advance prosecution, please telephone the undersigned or his associate, Joseph S. Iandiorio, collect in Waltham, Massachusetts, (617)890-5678.

Respectfully submitted,



Kirk Teska

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